ABSTRACT

A roll-over valve for a blow-by gas circulation system of an engine includes a piston slidably mounted within a valve housing. A lateral inlet opening and an outlet opening are disposed in the valve housing. When the valve is upright, fluid flows freely from the inlet opening to the outlet opening through the valve housing. When the valve overturns, the piston moves axially within the valve housing under the force of gravity into a roll-over position. When the piston is in the roll-over position, it blocks the fluid path between the inlet and outlet lines to close the valve. The inlet opening is positioned such that pressure in the inlet opening does not impede the movement of the piston. An air bleed passage fluidly connects portions of the valve housing that are above and below the piston and dampens movement of the piston within the valve housing.